

THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA

*Office of the General Manager*

May 13, 2010

Mr. Kevin L. Wattier  
General Manager  
Long Beach Water Department  
1800 East Wardlow Road  
Long Beach, CA 90807-4994

Dear Mr. Wattier:

Request for documentation from Metropolitan Water District for a water assessment by the Long Beach Water Department for a proposed development in the City of Long Beach

Your letter dated April 2, 2010, on the above subject, requested two items from The Metropolitan Water District of Southern California (Metropolitan):

1. The most current 20-year forecast of the reliability of Metropolitan's domestic and municipal supplies for its service area in five-year increments, under the three hydrologic conditions specified by SB 221 and SB 610.
2. The expected Metropolitan differential rate, and/or any other fees or charges, for water purchases exceeding a Water Supply Allocation Plan (WSAP) amount, but less than a preferential right of the City of Long Beach.

#### **Item 1**

Attachment A contains the comparison of Metropolitan's supply capabilities and projected demands under the three hydrologies: Single-Dry-Year (repeat of 1977), Multiple-Dry-Year (repeat of 1990-1992) and Average Year (average of 1922-2004). The key assumptions for the analysis and each of Metropolitan's resources – the Colorado River Aqueduct, State Water Project, and In-Region Storage – are also described and summarized in Attachment A.

The tables show that Metropolitan's assumed supply capabilities would be sufficient to meet expected firm demands from 2015 through 2035 under the three specified hydrologies based on the assumptions outlined in Appendix A. It must be noted that a key component to the water supply capability is the amount of water in Metropolitan's storage facilities. Storage is a major component of Metropolitan's dry-year resource management strategy, and so the assumption as to the amount of available storage is critical. Simply put, if Metropolitan storage resources are empty at the time of the given hydrologic events, Metropolitan would likely not have adequate supply capability to meet projected demands without implementing the WSAP. For the purposes of constructing the tables attached to this letter, the assumption used is a simulated median storage level going into each five-year increment, based on the balances of supplies and demands

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consistent with the overall assumptions shown in Attachment A. In practical terms, for each condition provided, there is an estimated 50 percent probability that storage levels would be higher than the assumption used, and a 50 percent probability that storage levels would be lower than the assumption used. All storage capability figures shown in the tables reflect actual storage program conveyance constraints. It is important to note that under some conditions, Metropolitan may choose to implement the WSAP in order to preserve storage reserves for a future year, instead of using the full supply capability. This can result in impacts at the retail level even under conditions where there may be adequate supply capabilities to meet firm demands.

The analyses included represent the most current available planning projections on supply and demands. Metropolitan is also in the processes of completing its Integrated Resources Adaptive Management Plan (IRAMP) and the 2010 Regional Urban Water Management Plan. Some of the assumptions may change as a result of those processes. For example, the retail demands included in this analysis incorporate an estimate of an additional 200,000 AF of water conservation. This savings amount represents a preliminary estimate resulting from retail water purveyors implementing minimal compliance to the water use efficiency target of a 20 percent per capita water use reduction by 2020 established under the Delta legislation SB 7x-7. This may be a conservative estimate and will be refined as we gather additional information on how member and local water agencies plan to comply with this legislation, including Metropolitan's effort through the IRAMP.

## **Item 2**

It would be speculative for staff to define the expected Metropolitan penalty rates for differential water purchases exceeding future WSAP amounts. Metropolitan's Board of Directors sets its water rates annually. In addition, the WSAP adopted in February 2008 established a 12 month review of the Plan after implementation. Since Metropolitan implemented the WSAP in July 2009, the process of 12-month review has begun with staff and member agencies. The review process may result in recommendations for changes to the WSAP that could affect future implementation and penalty rates. One potential adjustment under discussion would be limiting reductions for member agencies with average per capita water use of 100 gallons per day or less. While this adjustment is not final, it could provide a benefit to the City of Long Beach in the future, if implemented and if per capita demands drop below 100 gallons per day within the service area of the Long Beach Water Department.

For your reference, the current penalty-rate policy for water purchases over a WSAP allocation is: (1) two times the fully loaded Untreated Tier 2 rate for use between 100 percent and 115 percent of a WSAP allocation and (2) four times the fully loaded Untreated Tier 2 rate for use exceeding 115 percent of a WSAP allocation. There is also a consideration for agencies that exceed a WSAP allocation but do not exceed an equivalent calculation based on an agency's preferential rights percentage. Penalty rates for these agencies are reduced by one times the fully loaded Untreated Tier 2 rate. Metropolitan is adopted water rates for 2010, 2011 and 2012 are included in Attachment B.

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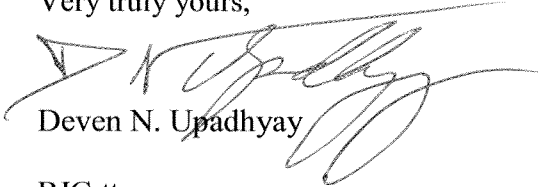
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Your letter also requested information regarding Metropolitan's policy, if any, regarding charges for water upon the exercise of preferential rights under Section 135 of the Metropolitan Water District Act. Section 135 of the Metropolitan Water District Act does not relate to pricing but to amounts of water that can be purchased for domestic and municipal uses within a member agency service boundary. The Board adopted WSAP does not prevent the delivery of water to a member agency. As such, any member agency is permitted to purchase supplies consistent with the Metropolitan Water District Act, including Section 135.

We hope that the provided information will assist you in the preparation of your water supply assessment. If you have any questions, please contact me at (213) 217- 6686 or

[Dupadhyay@mwdh2o.com](mailto:Dupadhyay@mwdh2o.com)

Very truly yours,

A handwritten signature in black ink, appearing to read 'Deven N. Upadhyay', is written over a horizontal line. The signature is stylized with a large, sweeping 'D' and 'U'.

Deven N. Upadhyay

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**Metropolitan's firm supplies for its service area under Single Dry Year, Multiple Dry Years, and Average Years**

**Key Assumptions:**

1. Retail Municipal and Industrial water demands are derived using Southern California Association of Governments and San Diego Association of Governments 2007 demographic projections to drive the estimating equations in Metropolitan's MWD-MAIN demand forecasting model.
2. Active Conservation levels are driven by calculating water savings from all active program device-based savings installed to date.
3. Code-Based Conservation levels are driven by calculating water savings from devices covered by existing water conservation ordinances and plumbing codes, with replacement and new construction rates driven by demographic growth consistent with those used to derive retail demand.
4. Additional water savings from retail-level compliance with "20 x 2020" conservation legislation was approximated by linearly ramping up to 200,000 acre-feet of demand reduction by 2020.
5. Local supply estimates, which include groundwater production, Los Angeles Aqueduct deliveries, surface supplies, recycled water and brackish groundwater desalination, are based on estimates of projects and yields that are currently existing and producing water supplies, or are currently under construction.
6. Water resources included are those developed and committed to date, and are shown to grow to their estimated full yields through 2035.
7. Additional Local Resources in the amount of 16 TAF were implemented beginning in 2015, reaching a total of 46 TAF by 2025 to approximate either additional Seawater Desalination or other local recycling or groundwater recovery projects.
8. Colorado River Aqueduct supplies include existing/committed programs along with planned QSA program ramp-up.
9. Colorado River transactions are available to supply additional water up to the CRA capacity of 1.25 MAF on an as-needed basis.
10. State Water Project supplies are estimated under restrictions from current Delta smelt and Chinook salmon Biological Opinions until 2012, after which an Interim Delta Solution was implemented to lessen the impact of the Biological Opinions. A Delta Fix was implemented in 2022, improving the State Water Project to yields approximating those estimated prior to the court rulings and Biological Opinions to protect Delta smelt and Chinook salmon.
11. No access to additional SWP water transfers in addition to any existing/committed water transfers, including State Drought Bank supplies.

12. Metropolitan's existing storage portfolio of approximately 4.9 MAF of surface and groundwater storage, and any existing/committed water transfers.
13. Storage resources reflect median level projections calculated using IRPSIM resource simulation modeling. Simulation modeling is based on the key assumptions listed above and starting storage conditions current as of January 1, 2010.

## Attachment A

| <b>Single Dry-Year</b><br>Supply Capability <sup>1</sup> and Projected Demands<br><b>Repeat of 1977 Hydrology</b><br>(acre-feet per year) |                  |                  |                  |                  |                  |
|---|------------------|------------------|------------------|------------------|------------------|
| <b>Forecast Year</b>  | <b>2015</b>      | <b>2020</b>      | <b>2025</b>      | <b>2030</b>      | <b>2035</b>      |
| <b>Total Supply Programs</b>  |                  |                  |                  |                  |                  |
| In-Region Storage   | 666,000          | 840,000          | 1,009,000        | 888,000          | 756,000          |
| California Aqueduct <sup>2</sup>  | 1,028,000        | 1,084,000        | 1,288,000        | 1,235,000        | 1,236,000        |
| Colorado River Aqueduct <sup>3</sup>  | 1,250,000        | 1,250,000        | 1,250,000        | 1,250,000        | 1,250,000        |
| <b>Maximum Supply Capability</b>  | <b>2,944,000</b> | <b>3,174,000</b> | <b>3,547,000</b> | <b>3,373,000</b> | <b>3,242,000</b> |
| <b>Firm Demands on Metropolitan</b>   |                  |                  |                  |                  |                  |
|   | <b>2,168,000</b> | <b>2,155,000</b> | <b>2,162,000</b> | <b>2,203,000</b> | <b>2,254,000</b> |
| <b>Remaining Shortage<sup>4</sup></b>   | <b>0</b>         | <b>0</b>         | <b>0</b>         | <b>0</b>         | <b>0</b>         |

<sup>1</sup> Represents Supply Capability for resource programs under listed year type.

<sup>2</sup> California Aqueduct includes Central Valley transfers and storage program supplies conveyed by the aqueduct.

<sup>3</sup> Maximum CRA deliveries limited to 1.25 MAF including IID-SDCWA transfers and canal linings.

<sup>4</sup> Represents remaining shortage based upon supply capability. Additionally, Metropolitan's Water Supply Allocation Plan can be implemented by it's Board of Directors at any time to manage resources.

## Attachment A

| <b>Multiple Dry-Year</b><br>Supply Capability <sup>1</sup> and Projected Demands<br><b>Repeat of 1990-1992 Hydrology</b><br>(acre-feet per year) |                  |                  |                  |                  |                  |
|--|------------------|------------------|------------------|------------------|------------------|
| <b>Forecast Year</b>   | <b>2015</b>      | <b>2020</b>      | <b>2025</b>      | <b>2030</b>      | <b>2035</b>      |
| <b>Total Supply Programs</b>   |                  |                  |                  |                  |                  |
| In-Region Storage  | 248,000          | 345,000          | 433,000          | 396,000          | 352,000          |
| California Aqueduct <sup>2</sup>   | 987,000          | 1,050,000        | 1,241,000        | 1,211,000        | 1,212,000        |
| Colorado River Aqueduct <sup>3</sup>   | 1,250,000        | 1,250,000        | 1,250,000        | 1,250,000        | 1,250,000        |
| <b>Maximum Supply Capability</b>   | <b>2,485,000</b> | <b>2,645,000</b> | <b>2,924,000</b> | <b>2,857,000</b> | <b>2,814,000</b> |
| <b>Firm Demands on Metropolitan</b>  |                  |                  |                  |                  |                  |
|  | <b>2,178,000</b> | <b>2,202,000</b> | <b>2,220,000</b> | <b>2,257,000</b> | <b>2,305,000</b> |
| <b>Remaining Shortage<sup>4</sup></b>  | <b>0</b>         | <b>0</b>         | <b>0</b>         | <b>0</b>         | <b>0</b>         |

<sup>1</sup> Represents Supply Capability for resource programs under listed year type.

<sup>2</sup> California Aqueduct includes Central Valley transfers and storage program supplies conveyed by the aqueduct.

<sup>3</sup> Maximum CRA deliveries limited to 1.25 MAF including IID-SDCWA transfers and canal linings.

<sup>4</sup> Represents remaining shortage based upon supply capability. Additionally, Metropolitan's Water Supply Allocation Plan can be implemented by it's Board of Directors at any time to manage resources.

## Attachment A

| <b>Average Year</b><br>Supply Capability <sup>1</sup> and Projected Demands<br><b>Average of 1922-2004 Hydrologies</b><br>(acre-feet per year) |                  |                  |                  |                  |                  |
|--|------------------|------------------|------------------|------------------|------------------|
| <b>Forecast Year</b>   | <b>2015</b>      | <b>2020</b>      | <b>2025</b>      | <b>2030</b>      | <b>2035</b>      |
| <b>Total Supply Programs</b>   |                  |                  |                  |                  |                  |
| In-Region Storage  | 666,000          | 840,000          | 1,009,000        | 888,000          | 756,000          |
| California Aqueduct <sup>2</sup>   | 1,902,000        | 2,007,000        | 2,435,000        | 2,401,000        | 2,402,000        |
| Colorado River Aqueduct <sup>3</sup>   | 1,250,000        | 1,250,000        | 1,250,000        | 1,250,000        | 1,250,000        |
| <b>Maximum Supply Capability</b>   | <b>3,818,000</b> | <b>4,097,000</b> | <b>4,694,000</b> | <b>4,539,000</b> | <b>4,408,000</b> |
| <b>Firm Demands on Metropolitan</b>  |                  |                  |                  |                  |                  |
|  | <b>1,974,000</b> | <b>1,960,000</b> | <b>1,962,000</b> | <b>2,002,000</b> | <b>2,051,000</b> |
| <b>Remaining Shortage<sup>4</sup></b>  | <b>0</b>         | <b>0</b>         | <b>0</b>         | <b>0</b>         | <b>0</b>         |

<sup>1</sup> Represents Supply Capability for resource programs under listed year type.

<sup>2</sup> California Aqueduct includes Central Valley transfers and storage program supplies conveyed by the aqueduct.

<sup>3</sup> Maximum CRA deliveries limited to 1.25 MAF including IID-SDCWA transfers and canal linings.

<sup>4</sup> Represents remaining shortage based upon supply capability. Additionally, Metropolitan's Water Supply Allocation Plan can be implemented by it's Board of Directors at any time to manage resources.



## Attachment A

| <b>In-Region Storage</b><br>Program Capabilities<br><b>Year 2015</b><br>(acre-feet per year) |   |                                       |   |
|--|---|---------------------------------------|---|
| <b>Hydrology</b>   | <b>Multiple Dry<br/>Years<br/>(1990-92)</b> | <b>Single Dry<br/>Year<br/>(1977)</b> | <b>Average<br/>Year<br/>(1922-2004)</b> |
| <b>Current Programs</b>  |   |                                       |   |
| Metropolitan Surface Storage<br>(DVL, Mathews, Skinner)                                      | 121,000                                     | 362,000                               | 362,000                                 |
| Flexible Storage in Castaic & Perris   | 33,000                                      | 100,000                               | 100,000                                 |
| Groundwater Storage  |   |                                       |   |
| Conjunctive Use  | 55,000                                      | 115,000                               | 115,000                                 |
| Cyclic Storage   | 18,000                                      | 55,000                                | 55,000                                  |
| <b>Subtotal of Current Programs</b>  | <b>227,000</b>                              | <b>632,000</b>                        | <b>632,000</b>                          |
| <b>Programs Under Development</b>  |   |                                       |   |
| Raymond Basin Groundwater Conjunctive Use  | 9,000                                       | 22,000                                | 22,000                                  |
| LADWP Groundwater Demonstration Project  | 12,000                                      | 12,000                                | 12,000                                  |
| <b>Subtotal of Proposed Programs</b>   | <b>21,000</b>                               | <b>34,000</b>                         | <b>34,000</b>                           |
| <b>Maximum Supply Capability</b>   | <b>248,000</b>                              | <b>666,000</b>                        | <b>666,000</b>                          |

## Attachment A

| <b>In-Region Storage</b><br>Program Capabilities<br><b>Year 2020</b><br>(acre-feet per year) |   |                                       |   |
|--|---|---------------------------------------|---|
| <b>Hydrology</b>   | <b>Multiple Dry<br/>Years<br/>(1990-92)</b> | <b>Single Dry<br/>Year<br/>(1977)</b> | <b>Average<br/>Year<br/>(1922-2004)</b> |
| <b>Current Programs</b>  |   |                                       |   |
| Metropolitan Surface Storage<br>(DVL, Mathews, Skinner)                                      | 156,000                                     | 469,000                               | 469,000                                 |
| Flexible Storage in Castaic & Perris   | 45,000                                      | 134,000                               | 134,000                                 |
| Groundwater Storage  |   |                                       |   |
| Conjunctive Use  | 89,000                                      | 115,000                               | 115,000                                 |
| Cyclic Storage   | 29,000                                      | 88,000                                | 88,000                                  |
| <b>Subtotal of Current Programs</b>  | <b>319,000</b>                              | <b>806,000</b>                        | <b>806,000</b>                          |
| <b>Programs Under Development</b>  |   |                                       |   |
| Raymond Basin Groundwater Conjunctive Use  | 14,000                                      | 22,000                                | 22,000                                  |
| LADWP Groundwater Demonstration Project  | 12,000                                      | 12,000                                | 12,000                                  |
| <b>Subtotal of Proposed Programs</b>   | <b>26,000</b>                               | <b>34,000</b>                         | <b>34,000</b>                           |
| <b>Maximum Supply Capability</b>   | <b>345,000</b>                              | <b>840,000</b>                        | <b>840,000</b>                          |

## Attachment A

| <b>In-Region Storage</b><br>Program Capabilities<br><b>Year 2025</b><br>(acre-feet per year) |   |                                       |   |
|--|---|---------------------------------------|---|
| <b>Hydrology</b>   | <b>Multiple Dry<br/>Years<br/>(1990-92)</b> | <b>Single Dry<br/>Year<br/>(1977)</b> | <b>Average<br/>Year<br/>(1922-2004)</b> |
| <b>Current Programs</b>  |   |                                       |   |
| Metropolitan Surface Storage<br>(DVL, Mathews, Skinner)                                      | 191,000                                     | 574,000                               | 574,000                                 |
| Flexible Storage in Castaic & Perris   | 54,000                                      | 162,000                               | 162,000                                 |
| Groundwater Storage  |   |                                       |   |
| Conjunctive Use  | 115,000                                     | 115,000                               | 115,000                                 |
| Cyclic Storage   | 41,000                                      | 124,000                               | 124,000                                 |
| <b>Subtotal of Current Programs</b>  | <b>401,000</b>                              | <b>975,000</b>                        | <b>975,000</b>                          |
| <b>Programs Under Development</b>  |   |                                       |   |
| Raymond Basin Groundwater Conjunctive Use  | 20,000                                      | 22,000                                | 22,000                                  |
| LADWP Groundwater Demonstration Project  | 12,000                                      | 12,000                                | 12,000                                  |
| <b>Subtotal of Proposed Programs</b>   | <b>32,000</b>                               | <b>34,000</b>                         | <b>34,000</b>                           |
| <b>Maximum Supply Capability</b>   | <b>433,000</b>                              | <b>1,009,000</b>                      | <b>1,009,000</b>                        |

## Attachment A

| <b>In-Region Storage</b><br>Program Capabilities<br><b>Year 2030</b><br>(acre-feet per year) |   |                                       |   |
|--|---|---------------------------------------|---|
| <b>Hydrology</b>   | <b>Multiple Dry<br/>Years<br/>(1990-92)</b> | <b>Single Dry<br/>Year<br/>(1977)</b> | <b>Average<br/>Year<br/>(1922-2004)</b> |
| <b>Current Programs</b>  |   |                                       |   |
| Metropolitan Surface Storage<br>(DVL, Mathews, Skinner)                                      | 156,000                                     | 467,000                               | 467,000                                 |
| Flexible Storage in Castaic & Perris   | 45,000                                      | 135,000                               | 135,000                                 |
| Groundwater Storage  |   |                                       |   |
| Conjunctive Use  | 115,000                                     | 115,000                               | 115,000                                 |
| Cyclic Storage   | 46,000                                      | 137,000                               | 137,000                                 |
| <b>Subtotal of Current Programs</b>  | <b>362,000</b>                              | <b>854,000</b>                        | <b>854,000</b>                          |
| <b>Programs Under Development</b>  |   |                                       |   |
| Raymond Basin Groundwater Conjunctive Use  | 22,000                                      | 22,000                                | 22,000                                  |
| LADWP Groundwater Demonstration Project  | 12,000                                      | 12,000                                | 12,000                                  |
| <b>Subtotal of Proposed Programs</b>   | <b>34,000</b>                               | <b>34,000</b>                         | <b>34,000</b>                           |
| <b>Maximum Supply Capability</b>   | <b>396,000</b>                              | <b>888,000</b>                        | <b>888,000</b>                          |

## Attachment A

| <b>In-Region Storage</b><br>Program Capabilities<br><b>Year 2035</b><br>(acre-feet per year) |   |                                       |   |
|--|---|---------------------------------------|---|
| <b>Hydrology</b>   | <b>Multiple Dry<br/>Years<br/>(1990-92)</b> | <b>Single Dry<br/>Year<br/>(1977)</b> | <b>Average<br/>Year<br/>(1922-2004)</b> |
| <b>Current Programs</b>  |   |                                       |   |
| Metropolitan Surface Storage<br>(DVL, Mathews, Skinner)                                      | 120,000                                     | 360,000                               | 360,000                                 |
| Flexible Storage in Castaic & Perris   | 36,000                                      | 107,000                               | 107,000                                 |
| Groundwater Storage  |   |                                       |   |
| Conjunctive Use  | 115,000                                     | 115,000                               | 115,000                                 |
| Cyclic Storage   | 47,000                                      | 140,000                               | 140,000                                 |
| <b>Subtotal of Current Programs</b>  | <b>318,000</b>                              | <b>722,000</b>                        | <b>722,000</b>                          |
| <b>Programs Under Development</b>  |   |                                       |   |
| Raymond Basin Groundwater Conjunctive Use  | 22,000                                      | 22,000                                | 22,000                                  |
| LADWP Groundwater Demonstration Project  | 12,000                                      | 12,000                                | 12,000                                  |
| <b>Subtotal of Proposed Programs</b>   | <b>34,000</b>                               | <b>34,000</b>                         | <b>34,000</b>                           |
| <b>Maximum Supply Capability</b>   | <b>352,000</b>                              | <b>756,000</b>                        | <b>756,000</b>                          |

## Attachment A

| <b>California Aqueduct</b><br>Program Capabilities<br><b>Year 2015</b><br>(acre-feet per year) |   |                                       |   |
|--|---|---------------------------------------|---|
| <b>Hydrology</b>   | <b>Multiple Dry<br/>Years<br/>(1990-92)</b> | <b>Single Dry<br/>Year<br/>(1977)</b> | <b>Average<br/>Year<br/>(1922-2004)</b> |
| <b>Current Programs</b>  |   |                                       |   |
| MWD Table A  | 567,000                                     | 534,000                               | 1,177,000                               |
| DWCV Table A   | 60,000                                      | 54,000                                | 127,000                                 |
| San Luis Carryover <sup>1</sup>  | 43,000                                      | 130,000                               | 130,000                                 |
| Article 21 Supplies  | 0   | 0                                     | 3,000                                   |
| San Bernardino Valley MWD Minimum Purchase   | 8,000                                       | 5,000                                 | 20,000                                  |
| San Bernardino Valley MWD Option Purchase  | 11,000                                      | 13,000                                | 20,000                                  |
| Yuba River Accord Purchase   | 22,000                                      | 22,000                                | 5,000                                   |
| Central Valley Storage and Transfers   |   |                                       |   |
| Semitropic Program   | 41,000                                      | 39,000                                | 60,000                                  |
| Arvin Edison Program   | 46,000                                      | 75,000                                | 75,000                                  |
| San Bernardino Valley MWD Program  | 7,000                                       | 20,000                                | 20,000                                  |
| Kern Delta Program   | 47,000                                      | 50,000                                | 50,000                                  |
| <b>Subtotal of Current Programs</b>  | <b>852,000</b>                              | <b>942,000</b>                        | <b>1,687,000</b>                        |
| <b>Programs Under Development</b>  |   |                                       |   |
| Delta Improvements   | 47,000                                      | 17,000                                | 119,000                                 |
| Mojave Groundwater Storage Program   | 5,000                                       | 2,000                                 | 29,000                                  |
| In-Delta Transfers   | 8,000                                       | 8,000                                 | 8,000                                   |
| Drought Water Bank / North of Delta Transfers  | 25,000                                      | 25,000                                | 25,000                                  |
| SBVMWD Central Feeder  | 5,000                                       | 5,000                                 | 5,000                                   |
| Shasta Return  | 18,000                                      | 18,000                                | 18,000                                  |
| Semitropic Agricultural Water Reuse Demonstration  | 11,000                                      | 11,000                                | 11,000                                  |
| IRP SWP Target <sup>2</sup>  | 16,000                                      | 0                                     | 0                                       |
| <b>Subtotal of Proposed Programs</b>   | <b>135,000</b>                              | <b>86,000</b>                         | <b>215,000</b>                          |
| <b>Maximum Supply Capability</b>   | <b>987,000</b>                              | <b>1,028,000</b>                      | <b>1,902,000</b>                        |

<sup>1</sup> Includes DWCV carryover.

<sup>2</sup> Remaining supply needed to meet IRP target.

## Attachment A

| <b>California Aqueduct</b><br>Program Capabilities<br><b>Year 2020</b><br>(acre-feet per year) |   |                                       |   |
|--|---|---------------------------------------|---|
| <b>Hydrology</b>   | <b>Multiple Dry<br/>Years<br/>(1990-92)</b> | <b>Single Dry<br/>Year<br/>(1977)</b> | <b>Average<br/>Year<br/>(1922-2004)</b> |
| <b>Current Programs</b>  |   |                                       |   |
| MWD Table A  | 567,000                                     | 534,000                               | 1,177,000                               |
| DWCV Table A   | 60,000                                      | 54,000                                | 127,000                                 |
| San Luis Carryover <sup>1</sup>  | 58,000                                      | 175,000                               | 175,000                                 |
| Article 21 Supplies  | 0   | 0                                     | 52,000                                  |
| San Bernardino Valley MWD Minimum Purchase   | 8,000                                       | 5,000                                 | 20,000                                  |
| San Bernardino Valley MWD Option Purchase  | 11,000                                      | 13,000                                | 20,000                                  |
| Yuba River Accord Purchase   | 19,000                                      | 22,000                                | 3,000                                   |
| Central Valley Storage and Transfers   |   |                                       |   |
| Semitropic Program   | 41,000                                      | 39,000                                | 60,000                                  |
| Arvin Edison Program   | 63,000                                      | 75,000                                | 75,000                                  |
| San Bernardino Valley MWD Program  | 10,000                                      | 31,000                                | 31,000                                  |
| Kern Delta Program   | 47,000                                      | 50,000                                | 50,000                                  |
| <b>Subtotal of Current Programs</b>  | <b>884,000</b>                              | <b>998,000</b>                        | <b>1,790,000</b>                        |
| <b>Programs Under Development</b>  |   |                                       |   |
| Delta Improvements   | 47,000                                      | 17,000                                | 119,000                                 |
| Mojave Groundwater Storage Program   | 5,000                                       | 2,000                                 | 31,000                                  |
| In-Delta Transfers   | 8,000                                       | 8,000                                 | 8,000                                   |
| Drought Water Bank / North of Delta Transfers  | 25,000                                      | 25,000                                | 25,000                                  |
| SBVMWD Central Feeder  | 5,000                                       | 5,000                                 | 5,000                                   |
| Shasta Return  | 18,000                                      | 18,000                                | 18,000                                  |
| Semitropic Agricultural Water Reuse Demonstration  | 11,000                                      | 11,000                                | 11,000                                  |
| IRP SWP Target <sup>2</sup>  | 47,000                                      | 0                                     | 0                                       |
| <b>Subtotal of Proposed Programs</b>   | <b>166,000</b>                              | <b>86,000</b>                         | <b>217,000</b>                          |
| <b>Maximum Supply Capability</b>   | <b>1,050,000</b>                            | <b>1,084,000</b>                      | <b>2,007,000</b>                        |

<sup>1</sup> Includes DWCV carryover.

<sup>2</sup> Remaining supply needed to meet IRP target.

## Attachment A

| <b>California Aqueduct</b><br>Program Capabilities<br><b>Year 2025</b><br>(acre-feet per year) |   |                                       |   |
|--|---|---------------------------------------|---|
| <b>Hydrology</b>   | <b>Multiple Dry<br/>Years<br/>(1990-92)</b> | <b>Single Dry<br/>Year<br/>(1977)</b> | <b>Average<br/>Year<br/>(1922-2004)</b> |
| <b>Current Programs</b>  |   |                                       |   |
| MWD Table A  | 567,000                                     | 534,000                               | 1,177,000                               |
| DWCV Table A   | 77,000                                      | 60,000                                | 155,000                                 |
| San Luis Carryover <sup>1</sup>  | 71,000                                      | 212,000                               | 212,000                                 |
| Article 21 Supplies  | 0   | 0                                     | 52,000                                  |
| San Bernardino Valley MWD Minimum Purchase   | 12,000                                      | 8,000                                 | 20,000                                  |
| San Bernardino Valley MWD Option Purchase  | 12,000                                      | 11,000                                | 29,000                                  |
| Yuba River Accord Purchase   | 19,000                                      | 22,000                                | 3,000                                   |
| Central Valley Storage and Transfers   |   |                                       |   |
| Semitropic Program   | 46,000                                      | 41,000                                | 69,000                                  |
| Arvin Edison Program   | 63,000                                      | 75,000                                | 75,000                                  |
| San Bernardino Valley MWD Program  | 15,000                                      | 44,000                                | 44,000                                  |
| Kern Delta Program   | 47,000                                      | 50,000                                | 50,000                                  |
| <b>Subtotal of Current Programs</b>  | <b>929,000</b>                              | <b>1,057,000</b>                      | <b>1,886,000</b>                        |
| <b>Programs Under Development</b>  |   |                                       |   |
| Delta Improvements   | 234,000                                     | 159,000                               | 439,000                                 |
| Mojave Groundwater Storage Program   | 11,000                                      | 5,000                                 | 43,000                                  |
| In-Delta Transfers   | 8,000                                       | 8,000                                 | 8,000                                   |
| Drought Water Bank / North of Delta Transfers  | 25,000                                      | 25,000                                | 25,000                                  |
| SBVMWD Central Feeder  | 5,000                                       | 5,000                                 | 5,000                                   |
| Shasta Return  | 18,000                                      | 18,000                                | 18,000                                  |
| Semitropic Agricultural Water Reuse Demonstration  | 11,000                                      | 11,000                                | 11,000                                  |
| IRP SWP Target <sup>2</sup>  | 0   | 0                                     | 0                                       |
| <b>Subtotal of Proposed Programs</b>   | <b>312,000</b>                              | <b>231,000</b>                        | <b>549,000</b>                          |
| <b>Maximum Supply Capability</b>   | <b>1,241,000</b>                            | <b>1,288,000</b>                      | <b>2,435,000</b>                        |

<sup>1</sup> Includes DWCV carryover.

<sup>2</sup> Remaining supply needed to meet IRP target.



## Attachment A

| <b>California Aqueduct</b><br>Program Capabilities<br><b>Year 2030</b><br>(acre-feet per year) |   |                                       |   |
|--|---|---------------------------------------|---|
| <b>Hydrology</b>   | <b>Multiple Dry<br/>Years<br/>(1990-92)</b> | <b>Single Dry<br/>Year<br/>(1977)</b> | <b>Average<br/>Year<br/>(1922-2004)</b> |
| <b>Current Programs</b>  |   |                                       |   |
| MWD Table A  | 567,000                                     | 534,000                               | 1,177,000                               |
| DWCV Table A   | 77,000                                      | 60,000                                | 155,000                                 |
| San Luis Carryover <sup>1</sup>  | 59,000                                      | 176,000                               | 176,000                                 |
| Article 21 Supplies  | 0   | 0                                     | 52,000                                  |
| San Bernardino Valley MWD Minimum Purchase   | 12,000                                      | 8,000                                 | 20,000                                  |
| San Bernardino Valley MWD Option Purchase  | 12,000                                      | 11,000                                | 29,000                                  |
| Yuba River Accord Purchase   | 0   | 0                                     | 0                                       |
| Central Valley Storage and Transfers   |   |                                       |   |
| Semitropic Program   | 46,000                                      | 41,000                                | 69,000                                  |
| Arvin Edison Program   | 63,000                                      | 75,000                                | 75,000                                  |
| San Bernardino Valley MWD Program  | 16,000                                      | 49,000                                | 49,000                                  |
| Kern Delta Program   | 47,000                                      | 50,000                                | 50,000                                  |
| <b>Subtotal of Current Programs</b>  | <b>899,000</b>                              | <b>1,004,000</b>                      | <b>1,852,000</b>                        |
| <b>Programs Under Development</b>  |   |                                       |   |
| Delta Improvements   | 234,000                                     | 159,000                               | 439,000                                 |
| Mojave Groundwater Storage Program   | 11,000                                      | 5,000                                 | 43,000                                  |
| In-Delta Transfers   | 8,000                                       | 8,000                                 | 8,000                                   |
| Drought Water Bank / North of Delta Transfers  | 25,000                                      | 25,000                                | 25,000                                  |
| SBVMWD Central Feeder  | 5,000                                       | 5,000                                 | 5,000                                   |
| Shasta Return  | 18,000                                      | 18,000                                | 18,000                                  |
| Semitropic Agricultural Water Reuse Demonstration  | 11,000                                      | 11,000                                | 11,000                                  |
| IRP SWP Target <sup>2</sup>  | 0   | 0                                     | 0                                       |
| <b>Subtotal of Proposed Programs</b>   | <b>312,000</b>                              | <b>231,000</b>                        | <b>549,000</b>                          |
| <b>Maximum Supply Capability</b>   | <b>1,211,000</b>                            | <b>1,235,000</b>                      | <b>2,401,000</b>                        |

<sup>1</sup> Includes DWCV carryover.

<sup>2</sup> Remaining supply needed to meet IRP target.

## Attachment A

| <b>California Aqueduct</b><br><b>Program Capabilities</b><br><b>Year 2035</b><br>(acre-feet per year) |   |                                       |   |
|---|---|---------------------------------------|---|
| <b>Hydrology</b>  | <b>Multiple Dry<br/>Years<br/>(1990-92)</b> | <b>Single Dry<br/>Year<br/>(1977)</b> | <b>Average<br/>Year<br/>(1922-2004)</b> |
| <b>Current Programs</b>   |   |                                       |   |
| MWD Table A   | 567,000                                     | 534,000                               | 1,177,000                               |
| DWCV Table A  | 77,000                                      | 60,000                                | 155,000                                 |
| San Luis Carryover <sup>1</sup>   | 59,000                                      | 176,000                               | 176,000                                 |
| Article 21 Supplies   | 0   | 0                                     | 52,000                                  |
| San Bernardino Valley MWD Minimum Purchase  | 12,000                                      | 8,000                                 | 20,000                                  |
| San Bernardino Valley MWD Option Purchase   | 12,000                                      | 11,000                                | 29,000                                  |
| Yuba River Accord Purchase  | 0   | 0                                     | 0                                       |
| Central Valley Storage and Transfers  |   |                                       |   |
| Semitropic Program  | 46,000                                      | 41,000                                | 69,000                                  |
| Arvin Edison Program  | 63,000                                      | 75,000                                | 75,000                                  |
| San Bernardino Valley MWD Program   | 17,000                                      | 50,000                                | 50,000                                  |
| Kern Delta Program  | 47,000                                      | 50,000                                | 50,000                                  |
| <b>Subtotal of Current Programs</b>   | <b>900,000</b>                              | <b>1,005,000</b>                      | <b>1,853,000</b>                        |
| <b>Programs Under Development</b>   |   |                                       |   |
| Delta Improvements  | 234,000                                     | 159,000                               | 439,000                                 |
| Mojave Groundwater Storage Program  | 11,000                                      | 5,000                                 | 43,000                                  |
| In-Delta Transfers  | 8,000                                       | 8,000                                 | 8,000                                   |
| Drought Water Bank / North Of Delta Transfers   | 25,000                                      | 25,000                                | 25,000                                  |
| SBVMWD Central Feeder   | 5,000                                       | 5,000                                 | 5,000                                   |
| Shasta Return   | 18,000                                      | 18,000                                | 18,000                                  |
| Semitropic Agricultural Water Reuse Demonstration   | 11,000                                      | 11,000                                | 11,000                                  |
| IRP SWP Target <sup>2</sup>   | 0   | 0                                     | 0                                       |
| <b>Subtotal of Proposed Programs</b>  | <b>312,000</b>                              | <b>231,000</b>                        | <b>549,000</b>                          |
| <b>Maximum Supply Capability</b>  | <b>1,212,000</b>                            | <b>1,236,000</b>                      | <b>2,402,000</b>                        |

<sup>1</sup> Includes DWCV carryover.

<sup>2</sup> Remaining supply needed to meet IRP target.

## Attachment A

| <b>Colorado River Aqueduct</b><br>Program Capabilities<br><b>Year 2015</b><br>(acre-feet per year) |   |                                       |   |
|--|---|---------------------------------------|---|
| <b>Hydrology</b>   | <b>Multiple Dry<br/>Years<br/>(1990-92)</b> | <b>Single Dry<br/>Year<br/>(1977)</b> | <b>Average<br/>Year<br/>(1922-2004)</b> |
| <b>Current Programs</b>  |   |                                       |   |
| Basic Apportionment – Priority 4   | 550,000                                     | 550,000                               | 550,000                                 |
| IID/MWD Conservation Program   | 85,000                                      | 85,000                                | 85,000                                  |
| Priority 5 Apportionment (Surplus)   | 0   | 0                                     | 91,000                                  |
| PVID Land Management, Crop Rotation,<br>and Water Supply Program                                   | 133,000                                     | 133,000                               | 133,000                                 |
| Lower Colorado Water Supply Project  | 6,000                                       | 6,000                                 | 6,000                                   |
| Lake Mead Storage Program  | 306,000                                     | 400,000                               | 400,000                                 |
| Quechan Settlement Agreement Supply  | 13,000                                      | 13,000                                | 13,000                                  |
| Forbearance for Present Perfected Rights   | (42,000)                                    | (47,000)                              | (47,000)                                |
| CVWD SWP/QSA Transfer Obligation   | (35,000)                                    | (35,000)                              | (35,000)                                |
| DWCV SWP Table A Obligation  | (60,000)                                    | (54,000)                              | (127,000)                               |
| DWCV SWP Table A Transfer Callback   | 32,000                                      | 29,000                                | 67,000                                  |
| DWCV Advance Delivery Account  | 28,000                                      | 25,000                                | 60,000                                  |
| Drop 2 Reservoir Funding   | 22,000                                      | 66,000                                | 66,000                                  |
| SNWA Agreement   | 40,000                                      | 40,000                                | 40,000                                  |
| <b>Subtotal of Current Programs</b>  | <b>1,078,000</b>                            | <b>1,211,000</b>                      | <b>1,302,000</b>                        |
| <b>Programs Under Development</b>  |   |                                       |   |
| Additional PVID Transfers (Crop Stressing/Fallowing)   | 66,000                                      | 66,000                                | 66,000                                  |
| Arizona Programs - CAP   | 50,000                                      | 50,000                                | 50,000                                  |
| California Indians / Other Ag  | 10,000                                      | 10,000                                | 10,000                                  |
| ICS Exchange   | 25,000                                      | 25,000                                | 25,000                                  |
| Expand SNWA Agreement  | 15,000                                      | 15,000                                | 15,000                                  |
| Agreements with CVWD   | 35,000                                      | 35,000                                | 35,000                                  |
| Hayfield Groundwater Extraction Project  | 5,000                                       | 5,000                                 | 5,000                                   |
| <b>Subtotal of Proposed Programs</b>   | <b>206,000</b>                              | <b>206,000</b>                        | <b>206,000</b>                          |
| <b>Additional Non-Metropolitan CRA Supplies</b>  |   |                                       |   |
| SDCWA/IID Transfer   | 100,000                                     | 100,000                               | 100,000                                 |
| Coachella & All-American Canal Lining<br>To SDCWA  | 80,000                                      | 80,000                                | 80,000                                  |
| To San Luis Rey Settlement Parties <sup>1</sup>  | 16,000                                      | 16,000                                | 16,000                                  |
| <b>Subtotal of Non-Metropolitan Supplies</b>   | <b>196,000</b>                              | <b>196,000</b>                        | <b>196,000</b>                          |
| <b>Maximum CRA Supply Capability<sup>2</sup></b>   | <b>1,480,000</b>                            | <b>1,613,000</b>                      | <b>1,704,000</b>                        |
| <b>Less CRA Capacity Constraint (amount above 1.25 MAF)</b>  | <b>(230,000)</b>                            | <b>(363,000)</b>                      | <b>(454,000)</b>                        |
| <b>Maximum Expected CRA Deliveries<sup>3</sup></b>   | <b>1,250,000</b>                            | <b>1,250,000</b>                      | <b>1,250,000</b>                        |
| <b>Less Non-Metropolitan Supplies<sup>4</sup></b>  | <b>(196,000)</b>                            | <b>(196,000)</b>                      | <b>(196,000)</b>                        |
| <b>Maximum Metropolitan Supply Capability<sup>5</sup></b>  | <b>1,054,000</b>                            | <b>1,054,000</b>                      | <b>1,054,000</b>                        |

<sup>1</sup> Subject to satisfaction of conditions specified in agreement among Metropolitan, the United States, and the San Luis Rey Settlement Parties

<sup>2</sup> Total amount of supplies available without taking into consideration CRA capacity constraint.

<sup>3</sup> The Colorado River Aqueduct delivery capacity is 1.250 MAF annually.

<sup>4</sup> Exchange obligation for the SDCWA-IID transfer and the Coachella and All American Canal Lining projects.

<sup>5</sup> The amount of CRA water available to Metropolitan after meeting its exchange obligations.

# Attachment A

| <b>Colorado River Aqueduct</b><br>Program Capabilities<br><b>Year 2020</b><br>(acre-feet per year) |   |                                       |   |
|--|---|---------------------------------------|---|
| <b>Hydrology</b>   | <b>Multiple Dry<br/>Years<br/>(1990-92)</b> | <b>Single Dry<br/>Year<br/>(1977)</b> | <b>Average<br/>Year<br/>(1922-2004)</b> |
| <b>Current Programs</b>  |   |                                       |   |
| Basic Apportionment - Priority 4   | 550,000                                     | 550,000                               | 550,000                                 |
| IID/MWD Conservation Program   | 85,000                                      | 85,000                                | 85,000                                  |
| Priority 5 Apportionment (Surplus)   | 500,000                                     | 356,000                               | 61,000                                  |
| PVID Land Management, Crop Rotation,<br>and Water Supply Program                                   | 133,000                                     | 133,000                               | 133,000                                 |
| Lower Colorado Water Supply Project  | 6,000                                       | 6,000                                 | 6,000                                   |
| Lake Mead Storage Program  | 400,000                                     | 400,000                               | 400,000                                 |
| Quechan Settlement Agreement Supply  | 13,000                                      | 13,000                                | 13,000                                  |
| Forbearance for Present Perfected Rights   | (47,000)                                    | (47,000)                              | (47,000)                                |
| CVWD SWP/QSA Transfer Obligation   | (35,000)                                    | (35,000)                              | (35,000)                                |
| DWCV SWP Table A Obligation  | (60,000)                                    | (54,000)                              | (127,000)                               |
| DWCV SWP Table A Transfer Callback   | 32,000                                      | 29,000                                | 67,000                                  |
| DWCV Advance Delivery Account  | 28,000                                      | 25,000                                | 60,000                                  |
| Drop 2 Reservoir Funding   | 22,000                                      | 25,000                                | 25,000                                  |
| SNWA Agreement   | 40,000                                      | 40,000                                | 40,000                                  |
| <b>Subtotal of Current Programs</b>  | <b>1,667,000</b>                            | <b>1,526,000</b>                      | <b>1,231,000</b>                        |
| <b>Programs Under Development</b>  |   |                                       |   |
| Additional PVID Transfers (Crop Stressing/Fallowing)   | 66,000                                      | 66,000                                | 66,000                                  |
| Arizona Programs - CAP   | 50,000                                      | 50,000                                | 50,000                                  |
| California Indians / Other Ag  | 10,000                                      | 10,000                                | 10,000                                  |
| ICS Exchange   | 25,000                                      | 25,000                                | 25,000                                  |
| Expand SNWA Agreement  | 15,000                                      | 15,000                                | 15,000                                  |
| Agreements with CVWD   | 35,000                                      | 35,000                                | 35,000                                  |
| Hayfield Groundwater Extraction Project  | 5,000                                       | 5,000                                 | 5,000                                   |
| <b>Subtotal of Proposed Programs</b>   | <b>206,000</b>                              | <b>206,000</b>                        | <b>206,000</b>                          |
| <b>Additional Non-Metropolitan CRA Supplies</b>  |   |                                       |   |
| SDCWA/IID Transfer   | 161,000                                     | 193,000                               | 193,000                                 |
| Coachella & All-American Canal Lining<br>To SDCWA  | 80,000                                      | 80,000                                | 80,000                                  |
| To San Luis Rey Settlement Parties <sup>1</sup>  | 16,000                                      | 16,000                                | 16,000                                  |
| <b>Subtotal of Non-Metropolitan Supplies</b>   | <b>257,000</b>                              | <b>289,000</b>                        | <b>289,000</b>                          |
| <b>Maximum CRA Supply Capability<sup>2</sup></b>   | <b>2,130,000</b>                            | <b>2,021,000</b>                      | <b>1,726,000</b>                        |
| <b>Less CRA Capacity Constraint (amount above 1.25 MAF)</b>  | <b>(880,000)</b>                            | <b>(771,000)</b>                      | <b>(476,000)</b>                        |
| <b>Maximum Expected CRA Deliveries<sup>3</sup></b>   | <b>1,250,000</b>                            | <b>1,250,000</b>                      | <b>1,250,000</b>                        |
| <b>Less Non-Metropolitan Supplies<sup>4</sup></b>  | <b>(257,000)</b>                            | <b>(289,000)</b>                      | <b>(289,000)</b>                        |
| <b>Maximum Metropolitan Supply Capability<sup>5</sup></b>  | <b>993,000</b>                              | <b>961,000</b>                        | <b>961,000</b>                          |

<sup>1</sup> Subject to satisfaction of conditions specified in agreement among Metropolitan, the United States, and the San Luis Rey Settlement Parties

<sup>2</sup> Total amount of supplies available without taking into consideration CRA capacity constraint.

<sup>3</sup> The Colorado River Aqueduct delivery capacity is 1.250 MAF annually.

<sup>4</sup> Exchange obligation for the SDCWA-IID transfer and the Coachella and All American Canal Lining projects.

<sup>5</sup> The amount of CRA water available to Metropolitan after meeting its exchange obligations.

## Attachment A

| <b>Colorado River Aqueduct</b><br>Program Capabilities<br><b>Year 2025</b><br>(acre-feet per year) |   |                                       |   |
|--|---|---------------------------------------|---|
| <b>Hydrology</b>   | <b>Multiple Dry<br/>Years<br/>(1990-92)</b> | <b>Single Dry<br/>Year<br/>(1977)</b> | <b>Average<br/>Year<br/>(1922-2004)</b> |
| <b>Current Programs</b>  |   |                                       |   |
| Basic Apportionment – Priority 4   | 550,000                                     | 550,000                               | 550,000                                 |
| IID/MWD Conservation Program   | 85,000                                      | 85,000                                | 85,000                                  |
| Priority 5 Apportionment (Surplus)   | 0   | 250,000                               | 53,000                                  |
| PVID Land Management, Crop Rotation,<br>and Water Supply Program                                   | 133,000                                     | 133,000                               | 133,000                                 |
| Lower Colorado Water Supply Project  | 6,000                                       | 5,000                                 | 5,000                                   |
| Lake Mead Storage Program  | 400,000                                     | 400,000                               | 400,000                                 |
| Quechan Settlement Agreement Supply  | 13,000                                      | 13,000                                | 13,000                                  |
| Forbearance for Present Perfected Rights   | (47,000)                                    | (47,000)                              | (47,000)                                |
| CVWD SWP/QSA Transfer Obligation   | (35,000)                                    | (35,000)                              | (35,000)                                |
| DWCV SWP Table A Obligation  | (77,000)                                    | (60,000)                              | (155,000)                               |
| DWCV SWP Table A Transfer Callback   | 41,000                                      | 32,000                                | 82,000                                  |
| DWCV Advance Delivery Account  | 36,000                                      | 28,000                                | 73,000                                  |
| Drop 2 Reservoir Funding   | 22,000                                      | 25,000                                | 25,000                                  |
| SNWA Agreement   | 0   | 0                                     | 0                                       |
| <b>Subtotal of Current Programs</b>  | <b>1,127,000</b>                            | <b>1,379,000</b>                      | <b>1,182,000</b>                        |
| <b>Programs Under Development</b>  |   |                                       |   |
| Additional PVID Transfers (Crop Stressing/Fallowing)   | 66,000                                      | 66,000                                | 66,000                                  |
| Arizona Programs - CAP   | 50,000                                      | 50,000                                | 50,000                                  |
| California Indians / Other Ag  | 10,000                                      | 10,000                                | 10,000                                  |
| ICS Exchange   | 25,000                                      | 25,000                                | 25,000                                  |
| Expand SNWA Agreement  | 0   | 0                                     | 0                                       |
| Agreements with CVWD   | 35,000                                      | 35,000                                | 35,000                                  |
| Hayfield Groundwater Extraction Project  | 5,000                                       | 5,000                                 | 5,000                                   |
| <b>Subtotal of Proposed Programs</b>   | <b>191,000</b>                              | <b>191,000</b>                        | <b>191,000</b>                          |
| <b>Additional Non-Metropolitan CRA Supplies</b>  |   |                                       |   |
| SDCWA/IID Transfer   | 200,000                                     | 200,000                               | 200,000                                 |
| Coachella & All-American Canal Lining<br>To SDCWA  | 80,000                                      | 80,000                                | 80,000                                  |
| To San Luis Rey Settlement Parties <sup>1</sup>  | 16,000                                      | 16,000                                | 16,000                                  |
| <b>Subtotal of Non-Metropolitan Supplies</b>   | <b>296,000</b>                              | <b>296,000</b>                        | <b>296,000</b>                          |
| <b>Maximum CRA Supply Capability<sup>2</sup></b>   | <b>1,614,000</b>                            | <b>1,866,000</b>                      | <b>1,669,000</b>                        |
| <b>Less CRA Capacity Constraint (amount above 1.25 MAF)</b>  | <b>(364,000)</b>                            | <b>(616,000)</b>                      | <b>(419,000)</b>                        |
| <b>Maximum Expected CRA Deliveries<sup>3</sup></b>   | <b>1,250,000</b>                            | <b>1,250,000</b>                      | <b>1,250,000</b>                        |
| <b>Less Non-Metropolitan Supplies<sup>4</sup></b>  | <b>(296,000)</b>                            | <b>(296,000)</b>                      | <b>(296,000)</b>                        |
| <b>Maximum Metropolitan Supply Capability<sup>5</sup></b>  | <b>954,000</b>                              | <b>954,000</b>                        | <b>954,000</b>                          |

<sup>1</sup> Subject to satisfaction of conditions specified in agreement among Metropolitan, the United States, and the San Luis Rey Settlement Parties

<sup>2</sup> Total amount of supplies available without taking into consideration CRA capacity constraint.

<sup>3</sup> The Colorado River Aqueduct delivery capacity is 1.250 MAF annually.

<sup>4</sup> Exchange obligation for the SDCWA-IID transfer and the Coachella and All American Canal Lining projects.

<sup>5</sup> The amount of CRA water available to Metropolitan after meeting its exchange obligations.

## Attachment A

| <b>Colorado River Aqueduct</b><br>Program Capabilities<br><b>Year 2030</b><br>(acre-feet per year) |   |                                       |   |
|--|---|---------------------------------------|---|
| <b>Hydrology</b>   | <b>Multiple Dry<br/>Years<br/>(1990-92)</b> | <b>Single Dry<br/>Year<br/>(1977)</b> | <b>Average<br/>Year<br/>(1922-2004)</b> |
| <b>Current Programs</b>  |   |                                       |   |
| Basic Apportionment – Priority 4   | 550,000                                     | 550,000                               | 550,000                                 |
| IID/MWD Conservation Program   | 85,000                                      | 85,000                                | 85,000                                  |
| Priority 5 Apportionment (Surplus)   | 0   | 0                                     | 13,000                                  |
| PVID Land Management, Crop Rotation,<br>and Water Supply Program                                   | 133,000                                     | 133,000                               | 133,000                                 |
| Lower Colorado Water Supply Project  | 5,000                                       | 5,000                                 | 5,000                                   |
| Lake Mead Storage Program  | 400,000                                     | 400,000                               | 400,000                                 |
| Quechan Settlement Agreement Supply  | 13,000                                      | 13,000                                | 13,000                                  |
| Forbearance for Present Perfected Rights   | (47,000)                                    | (47,000)                              | (47,000)                                |
| CVWD SWP/QSA Transfer Obligation   | (35,000)                                    | (35,000)                              | (35,000)                                |
| DWCV SWP Table A Obligation  | (77,000)                                    | (60,000)                              | (155,000)                               |
| DWCV SWP Table A Transfer Callback   | 41,000                                      | 32,000                                | 82,000                                  |
| DWCV Advance Delivery Account  | 36,000                                      | 28,000                                | 73,000                                  |
| Drop 2 Reservoir Funding   | 22,000                                      | 25,000                                | 25,000                                  |
| SNWA Agreement   | 0   | 0                                     | 0                                       |
| <b>Subtotal of Current Programs</b>  | <b>1,126,000</b>                            | <b>1,129,000</b>                      | <b>1,142,000</b>                        |
| <b>Programs Under Development</b>  |   |                                       |   |
| Additional PVID Transfers (Crop Stressing/Fallowing)   | 66,000                                      | 66,000                                | 66,000                                  |
| Arizona Programs - CAP   | 50,000                                      | 50,000                                | 50,000                                  |
| California Indians / Other Ag  | 10,000                                      | 10,000                                | 10,000                                  |
| ICS Exchange   | 25,000                                      | 25,000                                | 25,000                                  |
| Expand SNWA Agreement  | 0   | 0                                     | 0                                       |
| Agreements with CVWD   | 35,000                                      | 35,000                                | 35,000                                  |
| Hayfield Groundwater Extraction Project  | 0   | 0                                     | 0                                       |
| <b>Subtotal of Proposed Programs</b>   | <b>186,000</b>                              | <b>186,000</b>                        | <b>186,000</b>                          |
| <b>Additional Non-Metropolitan CRA Supplies</b>  |   |                                       |   |
| SDCWA/IID Transfer   | 200,000                                     | 200,000                               | 200,000                                 |
| Coachella & All-American Canal Lining<br>To SDCWA  | 80,000                                      | 80,000                                | 80,000                                  |
| To San Luis Rey Settlement Parties <sup>1</sup>  | 16,000                                      | 16,000                                | 16,000                                  |
| <b>Subtotal of Non-Metropolitan Supplies</b>   | <b>296,000</b>                              | <b>296,000</b>                        | <b>296,000</b>                          |
| <b>Maximum CRA Supply Capability<sup>2</sup></b>   | <b>1,608,000</b>                            | <b>1,611,000</b>                      | <b>1,624,000</b>                        |
| <b>Less CRA Capacity Constraint (amount above 1.25 MAF)</b>  | <b>(358,000)</b>                            | <b>(361,000)</b>                      | <b>(374,000)</b>                        |
| <b>Maximum Expected CRA Deliveries<sup>3</sup></b>   | <b>1,250,000</b>                            | <b>1,250,000</b>                      | <b>1,250,000</b>                        |
| <b>Less Non-Metropolitan Supplies<sup>4</sup></b>  | <b>(296,000)</b>                            | <b>(296,000)</b>                      | <b>(296,000)</b>                        |
| <b>Maximum Metropolitan Supply Capability<sup>5</sup></b>  | <b>954,000</b>                              | <b>954,000</b>                        | <b>954,000</b>                          |

<sup>1</sup> Subject to satisfaction of conditions specified in agreement among Metropolitan, the United States, and the San Luis Rey Settlement Parties

<sup>2</sup> Total amount of supplies available without taking into consideration CRA capacity constraint.

<sup>3</sup> The Colorado River Aqueduct delivery capacity is 1.250 MAF annually.

<sup>4</sup> Exchange obligation for the SDCWA-IID transfer and the Coachella and All American Canal Lining projects.

<sup>5</sup> The amount of CRA water available to Metropolitan after meeting its exchange obligations.

## Attachment A

| <b>Colorado River Aqueduct</b><br>Program Capabilities<br><b>Year 2035</b><br>(acre-feet per year) |   |                                       |   |
|--|---|---------------------------------------|---|
| <b>Hydrology</b>   | <b>Multiple Dry<br/>Years<br/>(1990-92)</b> | <b>Single Dry<br/>Year<br/>(1977)</b> | <b>Average<br/>Year<br/>(1922-2004)</b> |
| <b>Current Programs</b>  |   |                                       |   |
| Basic Apportionment – Priority 4   | 550,000                                     | 550,000                               | 550,000                                 |
| IID/MWD Conservation Program   | 85,000                                      | 85,000                                | 85,000                                  |
| Priority 5 Apportionment (Surplus)   | 0   | 0                                     | 10,000                                  |
| PVID Land Management, Crop Rotation,<br>and Water Supply Program                                   | 133,000                                     | 133,000                               | 133,000                                 |
| Lower Colorado Water Supply Project  | 5,000                                       | 5,000                                 | 5,000                                   |
| Lake Mead Storage Program  | 332,000                                     | 400,000                               | 400,000                                 |
| Quechan Settlement Agreement Supply  | 13,000                                      | 13,000                                | 13,000                                  |
| Forbearance for Present Perfected Rights   | (47,000)                                    | (47,000)                              | (47,000)                                |
| CVWD SWP/QSA Transfer Obligation   | (35,000)                                    | (35,000)                              | (35,000)                                |
| DWCV SWP Table A Obligation  | (77,000)                                    | (60,000)                              | (155,000)                               |
| DWCV SWP Table A Transfer Callback   | 41,000                                      | 32,000                                | 82,000                                  |
| DWCV Advance Delivery Account  | 36,000                                      | 28,000                                | 73,000                                  |
| Drop 2 Reservoir Funding   | 22,000                                      | 25,000                                | 25,000                                  |
| SNWA Agreement   | 0   | 0                                     | 0                                       |
| <b>Subtotal of Current Programs</b>  | <b>1,058,000</b>                            | <b>1,129,000</b>                      | <b>1,139,000</b>                        |
| <b>Programs Under Development</b>  |   |                                       |   |
| Additional PVID Transfers (Crop Stressing/Fallowing)   | 66,000                                      | 66,000                                | 66,000                                  |
| Arizona Programs - CAP   | 50,000                                      | 50,000                                | 50,000                                  |
| California Indians / Other Ag  | 10,000                                      | 10,000                                | 10,000                                  |
| ICS Exchange   | 25,000                                      | 25,000                                | 25,000                                  |
| Expand SNWA Agreement  | 0   | 0                                     | 0                                       |
| Agreements with CVWD   | 35,000                                      | 35,000                                | 35,000                                  |
| Hayfield Groundwater Extraction Project  | 0   | 0                                     | 0                                       |
| <b>Subtotal of Proposed Programs</b>   | <b>186,000</b>                              | <b>186,000</b>                        | <b>186,000</b>                          |
| <b>Additional Non-Metropolitan CRA Supplies</b>  |   |                                       |   |
| SDCWA/IID Transfer   | 200,000                                     | 200,000                               | 200,000                                 |
| Coachella & All-American Canal Lining<br>To SDCWA  | 80,000                                      | 80,000                                | 80,000                                  |
| To San Luis Rey Settlement Parties <sup>1</sup>  | 16,000                                      | 16,000                                | 16,000                                  |
| <b>Subtotal of Non-Metropolitan Supplies</b>   | <b>296,000</b>                              | <b>296,000</b>                        | <b>296,000</b>                          |
| <b>Maximum CRA Supply Capability<sup>2</sup></b>   | <b>1,540,000</b>                            | <b>1,611,000</b>                      | <b>1,621,000</b>                        |
| <b>Less CRA Capacity Constraint (amount above 1.25 MAF)</b>  | <b>(290,000)</b>                            | <b>(361,000)</b>                      | <b>(371,000)</b>                        |
| <b>Maximum Expected CRA Deliveries<sup>3</sup></b>   | <b>1,250,000</b>                            | <b>1,250,000</b>                      | <b>1,250,000</b>                        |
| <b>Less Non-Metropolitan Supplies<sup>4</sup></b>  | <b>(296,000)</b>                            | <b>(296,000)</b>                      | <b>(296,000)</b>                        |
| <b>Maximum Metropolitan Supply Capability<sup>5</sup></b>  | <b>954,000</b>                              | <b>954,000</b>                        | <b>954,000</b>                          |

<sup>1</sup> Subject to satisfaction of conditions specified in agreement among Metropolitan, the United States, and the San Luis Rey Settlement Parties

<sup>2</sup> Total amount of supplies available without taking into consideration CRA capacity constraint.

<sup>3</sup> The Colorado River Aqueduct delivery capacity is 1.250 MAF annually.

<sup>4</sup> Exchange obligation for the SDCWA-IID transfer and the Coachella and All American Canal Lining projects.

<sup>5</sup> The amount of CRA water available to Metropolitan after meeting its exchange obligations.

## Attachment B

### Metropolitan Water District of Southern California Water Rates and Charges

|   | <u>Effective</u><br><u>1/1/2010</u> | <u>Effective</u><br><u>1/1/2011</u> | <u>Effective</u><br><u>1/1/2012</u> |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| <u>Tier 1 Supply Rate</u><br>(dollars per acre-foot)                            | \$101                               | \$104                               | \$106                               |
| <u>Delta Supply Surcharge</u><br>(dollars per acre-foot)                        | \$69                                | \$51                                | \$58                                |
| <u>Tier 2 Supply Rate</u><br>(dollars per acre-foot)                            | \$280                               | \$280                               | \$290                               |
| <u>System Access Rate</u><br>(dollars per acre-foot)                            | \$154                               | \$204                               | \$217                               |
| <u>Water Stewardship Rate</u><br>(dollars per acre-foot)                        | \$41                                | \$41                                | \$43                                |
| <u>System Power Rate</u><br>(dollars per acre-foot)                             | \$119                               | \$127                               | \$136                               |
| Full Service Untreated Volumetric Cost (\$/AF)                                  |                                     |                                     |                                     |
| Tier 1  | \$484                               | \$527                               | \$560                               |
| Tier 2  | \$594                               | \$652                               | \$686                               |
| <u>Replenishment Water Rate: untreated</u><br>(dollars per acre-foot)           | \$366                               | \$409                               | \$442                               |
| <u>Interim Agricultural Water Program: untreated</u><br>(dollars per acre-foot) | \$416                               | \$482                               | \$537                               |
| <u>Treatment Surcharge</u><br>(dollars per acre-foot)                           | \$217                               | \$217                               | \$234                               |
| Full Service Treated Volumetric Cost (\$/AF)                                    |                                     |                                     |                                     |
| Tier 1  | \$701                               | \$744                               | \$794                               |
| Tier 2  | \$811                               | \$869                               | \$920                               |
| <u>Treated Replenishment Water Rate</u><br>(treated dollars per acre-foot)      | \$558                               | \$601                               | \$651                               |
| <u>Treated Interim Agricultural Water Program</u><br>(dollars per acre-foot)    | \$615                               | \$687                               | \$765                               |
| <u>Readiness-to-serve Charge</u><br>(millions of dollars)                       | \$114                               | \$125                               | \$146                               |
| <u>Capacity Charge</u><br>(dollars per cubic foot second)                       | \$7,200                             | \$7,200                             | \$7,400                             |

#### Definitions

**Tier 1 Supply Rate** - recovers the majority of the supply costs.

**Tier 2 Supply Rate** - a higher block rate that reflects Metropolitan's cost of developing additional supply applied to annual purchase of water above baseline.

**Delta Supply Surcharge** - recovers the additional supply costs and other costs due to the pumping restrictions on the State Water Project. The Delta Supply Surcharge replaced the Water Supply Surcharge effective with the 2009/10 rates.

**System Access Rate** - recovers a portion of the capital and operations maintenance costs associated with the delivery of supplies.

**System Power Rate** - recovers Metropolitan's power costs for pumping water to Southern California.

**Water Stewardship Rate** - recovers the cost of Metropolitan's financial commitment to conservation, water recycling,



## Attachment B

groundwater clean-up and other local resource management programs.

**Replenishment Water Rate** - a discounted rate for surplus system supplies available for the purpose of replenishing local storage.

**Treated Replenishment Water Rate** - a discounted rate for surplus system supplies available for the purpose of replenishing local storage.

**Interim Agricultural Water Rate** - discounted rate for surplus system supplies available for agricultural use. Program is phasing out.

**Treated Interim Agricultural Water Program Rate** – a discounted rate for surplus system supplies available for the agricultural use. Program is phasing out.

**Treatment Surcharge** - recovers the costs of treating water.

**Readiness-to-Serve Charge** - a fixed charge that recovers the cost of the portion of system capacity that provides standby and emergency service.

**Capacity Charge** - a fixed charge to recover the cost of providing peak capacity within the distribution system.